

REMARKS

Applicants thank the Examiner for the very thorough consideration given the present application. Claims 1-6, 8-14, 16 and 18-23 remain in the application and claims 1, 13, 16 and 21 are independent. The Office Action dated August 6, 2010 has been received and carefully reviewed. Each issue raised in the Office Action is addressed below. Reconsideration and allowance of the present application are respectfully requested in view of the following remarks.

Allowable Subject Matter

Claims 13, 14 and 21 stand allowed. Applicants appreciate this indication of patentable subject matter. By this reply, the remaining independent claims 1 and 16 have been amended to obviate the rejections for lack of clarity and to emphasize the distinctions over the applied prior art. Reconsideration and allowance are respectfully requested.

Claim Rejections — 35 U.S.C. § 112, Second Paragraph

Claims 1-6, 8-12, 16, 18-20, 22 and 23 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. This rejection is respectfully traversed. The Examiner indicates specific phrases within claims 1 and 16 either lack antecedent basis or are not clear. While not conceding the appropriateness of the rejection, Applicants respectfully submit the claims 1 and 16 have been amended to obviate any alleged indefiniteness. More specifically, with respect to the phrase “the at least one object” in the last line of claim 1, the last subparagraph of claim 1 has been amended to refer to the “one object or the plurality of objects,” which is *verbatim* the same phrase used in line 11 of claim 1. Therefore, it is respectfully submitted there is a proper antecedent basis for “the one object or the plurality of objects” in the last subparagraph, because it refers to the function of the blades of the movable collecting device by which one object or a plurality of objects are movable with respect to the intermediate store.

Likewise, claim 16 has been amended to make clear that it is the portal robot that moves a collecting device over the storage area and it is the gripping device that moves vertically downward for picking up a stack part, the gripping device is on the collecting device and the gripping device includes two mutually opposed blades which are extended out of the collecting device.

It is respectfully submitted the claims now particularly point out and distinctly claim the subject matter that Applicants regard as his invention. Reconsideration and withdrawal of the rejection are respectfully submitted.

Claim Rejections – 35 U.S.C. § 103

Claims 1, 3/1-5/1, 6, 8, 10-12, 16, 19 and 22 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Peltomaki in view of U.S. Pat. No. 5,211,523 to Galan et al. (“Galan”). Claims 2, 3/2-5/2, 9, 18, 20 and 23 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Peltomaki in view of Galan, and further in view of Blakely. Applicants submit the Examiner has failed to establish a *prima facie* case of obviousness and respectfully traverse the rejections. A complete discussion of the Examiner's rejection is set forth in the Office Action, and is not being repeated here.

In order to establish a *prima facie* case of obviousness under 35 U.S.C. § 103(a), the cited references must teach or suggest each and every element in the claims. See MPEP § 706.02(j) and MPEP §§ 2141-2144.

Applicants respectfully submit that this combination of elements as set forth in independent claims 1 and 16 is not disclosed or made obvious by the prior art of record, including Peltomaki, Galan and Blakely.

The Examiner admits that Peltomaki fails to show or suggest blades of a gripping device that are vertically movable with respect to an intermediate store, as defined in these claims. The rejection also admits that “the intermediate store of Peltomaki is not arranged in a fixed location above the storage area when the objects are being picked up.”

As the Examiner has tacitly indicated, the frame 21 of Peltomaki, which has been designated as “intermediate store 21” in the rejection, cannot be interpreted as an intermediate store because it moves in the vertical direction, contrary to the recitation in claims 1 and 16. As described in Peltomaki, among other places, in column 2, lines 14-18, the “gripping device of the robot preferably comprises a vertically movable tower-like frame” and is “vertically movable upwards.” As should be clear from Figures 2 and 3 of Peltomaki, the vertically movable gripping device 20 raises or lowers a stack of boxes 13 in unison within frame 21.

It is important to note that the gripping device of Peltomaki only moves vertically over the stack of boxes. There is no horizontal movement of boxes within frame 21. It is also

important to note that the stacks of boxes are only 5 cm apart in the storage room, as described in column 3, lines 39-48. This is all because the “object of the invention” of Peltomaki, as described in column 1, lines 33-58, is to “speed up the picking and delivery of goods”, by limiting the robot to “vertical movement”, thereby keeping horizontal movement to an absolute minimum by “eliminating void spaces, such as passageways and conveyor aisles” between the stacks of boxes. A requirement of achieving this goal is that “the gripping device of the robot has to be slim, being only slightly larger than the outer dimensions of the stack of boxes.” (column 3, lines 46-48)(emphasis added) Thus, the invention of Peltomaki is predicated upon a very slim robot moving quickly over box stacks tightly packed within the store room and only moving the boxes vertically within the frame 21. And thus, any deviation from this architecture would destroy the very advantages for which Peltomaki is designed.

The rejection admits Peltomaki cannot vertically move a box or stack of boxes to or from an intermediate store at a location above the storage area because there is no intermediate store at a fixed or fixable location above the storage area. In an attempt to remedy these admitted defects, the rejection turns to Galan.

Galan discloses a system for automatic handling and transport of boxes, containers or the like. There is an apparatus (autoguided vehicle 21) described, which can remove the containers 5 from an external support and place them in a container storage area 22 located on the vehicle 21. The vehicle 21 includes a manipulator 23 which can remove and place containers horizontally to the front or rear of the container support 22, as well as at different heights on the trays 44. The manipulator includes two similar columns 45 joined at their bottom to a frame of the apparatus and at their top to one another by means of beam 46. Rotary arm 42 is mounted to frame 41 for movement up and down on columns 45, and rotary arm carries a clamp assembly 56 which carries pivotable members 67, which can open and close to provide a clamping function for lifting, rotating and horizontally moving the containers. In order for the clamp assembly 56 (which the Examiner has identified as the gripping device) to move a container 5 to or from a storage tray 44, it must access and grip a container on a work table 9 from the side as shown in Figure 4, move the container in a horizontal direction to the space within vehicle 21, rotate the container horizontally by means of extendable rotary arm 42, and then again move the container horizontally to either the front or rear support tray 44. Thus, as the vehicle 21 moves along the floor along path 29, it requires enormous peripheral free space between the workstations, as well

as additional free space within the vehicle so that the containers may be accessed, manipulated and stored.

Thus, in an attempt to address the features of claims 1 and 16, the rejection purports to modify the apparatus of Peltomaki “by using blades of a gripping device which move vertically relative to the intermediate store ... to more effectively and efficiently pick-up a plurality of articles.” Applicants respectfully submit that this proposed modification is self-contradictory and violates the rules which control such reference combinations as set forth in MPEP § 2143.01.

First, it is noted that the claims require collection by vertical movement, not horizontal movement. The “utilizing blades of a gripping device” of Galan requires several horizontal movements as described above. Second, the proposed combination cannot be accomplished without destroying the 5 cm spacing between the stacks of boxes in the store room that creates the efficiency in Peltomaki. How can the modification be construed to create efficiency as alleged in the rejection when its incorporation in Peltomaki would require large open spaces for the autoguided vehicle 21 of Galan? Even if merely the clamp assembly 56, rotary arm 42 and allegedly “fixed” intermediate store 44 of Galan were to be incorporated within the frame 21 of Peltomaki, the frame would have to be substantially enlarged, creating inefficient open spaces within the frame itself, which is precisely opposite to the entire object of Peltomaki, discussed above. Even if there were some way to incorporate such features within the robot of Peltomaki, such proposed modifications would render Peltomaki “unsatisfactory for its intended purpose” and “change the principle of operation” of Peltomaki, or both, which are not proper under sections V and VI of MPEP § 2143.01.

Finally, the recent “*2010 KSR Guidelines Update*”, published in the Federal Register on September 1, 2010, specifically cautions against using such hindsight in its discussion of *DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 567 F.3d 1314 (Fed. Cir. 2009). An inference that a claimed combination would not have been obvious is especially strong where the prior art’s teachings undermine the very reason being proffered as to why a person of ordinary skill would have combined the known elements. The creation of efficiency, as alleged in the rejection, cannot be a motivation for a modification that eliminates the efficiency that is the basis of Peltomaki.

Blakeley shows a device for collecting stacked logs by moving L-shaped members B and C together to force spikes 30 to engage the ends of the logs. Once again, it is not clear to

Applicants as to how the art of "log grabs" as shown by Blakeley is reasonably pertinent to the art of the art of computer controlled selection of a specific number of boxes from stacks for delivery in a warehouse, and comments made above with respect to Peltomaki and Galan are incorporated herein. Once again, Applicants fail to see, and the Office Action fails to establish, reasonable pertinence. Why would one working in the art of warehouses turn to the art of log grabs? Applicants respectfully submit that Blakely fails to address the deficiencies of Peltomaki and Galen addressed above, by failing to show or suggest a collecting device being movable over the storage area and a portal robot for moving the collecting device over the storage area, an intermediate store on the movable collecting device arranged in a fixable or fixed location above the storage area of the objects to be picked up on the collecting device to accommodate objects to be picked up from the storage area for filling the intermediate store successively from various stacks in separate pick-up steps. Blakely fails to remedy the defects of the combination of Peltomaki and Galen discussed above.

Applicants respectfully submit that the combination of elements as set forth in independent claims 1 and 16 is not disclosed or made obvious by the prior art of record, including Peltomaki, Galan and Blakely, for the reasons explained above. Accordingly, reconsideration and withdrawal of this rejection are respectfully requested.

With regard to dependent claims 2-6, 8-12, 18-20, 22 and 23, Applicants submit that dependent claims 2-6, 8-12, 18-20, 22 and 23 depend, either directly or indirectly, from independent claims 1 and 16 which are allowable for the reasons set forth above, and therefore claims 2-6, 8-12, 18-20, 22 and 23 are allowable based at least on their dependence from claims 1 and 16. Reconsideration and allowance thereof are respectfully requested.

Conclusion

All objections and rejections raised in the Office Action having been properly traversed and addressed, it is respectfully submitted that the present application is in condition for allowance. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Notice of same is earnestly solicited.

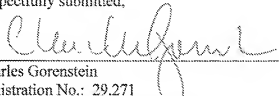
Prompt and favorable consideration of this Amendment is respectfully requested.

If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone Paul T. Sewell, Registration No. 61,784, at (703) 205-8000, in the Washington, D.C. area.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.14; particularly, extension of time fees.

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Respectfully submitted,

By 
Charles Gorenstein
Registration No.: 29,271
BIRCH, STEWART, KOLASCH & BIRCH, LLP
8110 Gatehouse Road, Suite 100 East
P.O. Box 747
Falls Church, VA 22040-0747
703-205-8000